CHEM 1105: SURVEY OF GENERAL CHEMISTRY LABORATORY
Summer II 2015

Course: CHEM 1105 is scheduled to meet Monday-Thursday from 2:00 PM to 5:50 PM in STC 308.
Instructor: Dr. Bukuo Ni
Office: Science Building 303
Office Hours: Monday-Thursday 11:00 AM to 12:00 Noon, other times by appointment.
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Text/Manual and other required material:
Textbook: Laboratory Experiments for Introduction to General, Organic, and Biochemistry, 8th Edition, Brooks/Cole, Cengage Learning; ISBN: 978113310508; by Bettelheim, Brown, Campbell, Farrell.
Supplies: a **Safety goggle** with side shields and a **Padlock** are a Must for the lab work (no exception); appropriate lab attire. Lab coat is optional on lab day.

Course Description
You must write down what you observe and measure during the time of the experiment. Compose the laboratory report in sufficient detail to allow someone else to report the experiment exactly. The observations section of the report must be the original notes taken during the course of the experiment (take detailed, legible notes during the experiment). You can also submit a typed version of your observations if you wish, but you Must submit your original notes taken during the experiment.

Each laboratory report will consist of the following sections
Prelab Section–40 points (due at the beginning of the laboratory)
A. Title–2 points B. Objective–3 points C. Procedure–15 points
D. Physical Constants/Reagent Data–10 points E. Safety–5 points
F. Stoichiometry/Theory–5 points

Post lab Section–60 points (Must be completed by the beginning of the next laboratory period).
A. Modifications to procedure–5 points
B. Observations–15 points (this sections should be your notes of observations that you make DURING the course of the experiment)
C. Results–20 points
D. Discussion–20 points

Student Learning Outcomes
By the end of the semester I intend my students to have realized a number of objectives. (1) All students must be able to readily identify glassware commonly used in the chemistry laboratory and know how to properly utilize the glassware.

(2) Learn basic chemistry techniques, such as how to calculate percent yields, how to properly use measuring devices, how to properly clean glassware at the end of an experiment.
(3) Learn the safety requirements and methods needed to work in a chemistry laboratory. Learn how to safely handle, utilize and dispose of chemicals.
(4) Learn how to document laboratory experiments, how to maintain a scientific notebook.
(5) Communication in the form of laboratory reports will be clear, purposeful, and make appropriate use of evidence, data and technology as applicable.
(6) In laboratory experiments, you should be able to individually and within a team with fellow classmates, conduct laboratory experiments, critically analyze data, draw conclusions from the data, and clearly and concisely report the observations and conclusions drawn from the laboratory experiments.
(7) Students will develop and execute effective processes for completing tasks.
(8) Students will be able to interpret, test and demonstrate principles revealed in empirical data.
(9) Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose.

Lab Cleanliness
You will be expected to maintain a clean and orderly lab. At the end of every experiment, your bench space and hood space must be cleaned. Any equipment utilized during the experiment must be cleaned as well (balances, rotovaps, etc.). You should ensure that sinks and floors are also clean. If the lab space and equipment that you utilized during the experiment is left dirty and unorganized, you will be penalized 20% on your lab report. The lab report has to be typed for grading.

Grading/Evaluation
The grade for this course will be derived as follows:
Cleanliness and Behavior: 10% of total grade.
Pre-lab: 35% of total grade.
Post lab report: 55% of total grade.

You are required to submit Data and Post Lab /Lab Report in a timely manner. You will incur a 10% penalty for every day that your lab report is late; thus, if a lab report is 10 days late, you will receive a zero for that report. There will be absolutely no make-ups for laboratory experiments. If you miss a laboratory experiment that will be your dropped laboratory write-up. If you miss more than one laboratory experiment, you will be assigned a grade of zero for that assignment. **The last drop date for the course is August 3 with Q grade**. Grading will be based on a standard percentage scale: 100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; 59-below =F. Dishonest scholarship will earn an automatic zero (0) and initiate prosecution to the fullest extent. Incomplete grades may be given only if the student has a current average above 70% and is precluded from completion of the course by a documented illness or family crisis.

Attendance and Class Participation
All students are expected to attend classes on a regular basis and attendance will be recorded. The Department of Chemistry adheres to the attendance policy set by the University as stated in the most current Undergraduate Catalog. Being late by more than 5 minutes is equivalent to missing a lecture. Excessive absence will be reported to the Dean of the College and Dean of students. In addition, according to the TAMU-Commerce Procedure A13.02, Good class attendance will be necessary in order to pass this course.

Student Conduct Policy:
In order to create a "learning environment" free of disruption, you MUST TURN OFF your cell phones, MP3 players, PDA's, Pagers, and any other electronic devices before entering the class. Students are expected to comply with the student code of conduct as stated Student's Guidebook, Policies and Procedures, Conduct. If the student is failed to comply with the code of conduct and being disrespectful, disruptive to the instructor or the students of the class, the instructor reserves the right to dismiss the student from the class on the first offense. A second offense may constitute dismissal from the course with a failing grade. A and M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity expression will be maintained.

Academic Integrity and Honesty Policy:
Academic cheating, plagiarism, and other forms of academic misconduct may result in removal of the student from class with a failing grade or may in extreme cases result in suspension or expulsion from the University as described in the Code of Student Conduct section of the Student1s Guidebook A&M-Commerce Procedure 13.99.99.R0.10

Students with Disabilities
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:
Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Tentative Class Schedule

Week	Date	Topics
1	July 13	Safety lab and check in
	July 14	Experiment 1: Laboratory techniques: using the laboratory gas burner; making laboratory measurement
	July 15	Experiment 2: Density determination
	July 16	Experiment 3: Separation of the components of a mixture
2	July 20	Experiment 4: Resolution of a mixture by distillation
	July 21	Experiment 5: The empirical formula of a compound: the law of constant composition
	July 22	Experiment 6: Determination of the formula of a metal oxide
	July 23	No lab
3	July 27	Experiment 7: Gases of chemical reactions
	July 28	Experiment 8: Chemical properties of consumer products
	July 29	Experiment 11: Charles law: the volume-temperature relationship of a gas
	July 30	No lab
4	August 3	Experiment 14: Solubility and solution
	August 4	Experiment 15: Water of Hydration
	August 5	Experiment 17: The law of chemical equilibrium and Le Chatelier's principle
	August 6	No lab
5	August 10	Experiment 19: Analysis of vinegar by titration
	August 11	Check out
	August 12	
	August 13	